Commonwealth of Kentucky Environmental and Public Protection Cabinet Department for Environmental Protection

Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

Final

AIR QUALITY PERMIT Issued under 401 KAR 52:020

Permittee Name: Lafarge North America
Mailing Address: 101 West River Road

Silver Grove, Kentucky 41085

Source Name: Same as above Mailing Address: Same as above

Source Location: 5145 Mary Ingles Highway,

Silver Grove, Kentucky 41085

Permit Number: V-04-042 (Revision 1)

Source A. I. #: 591

Activity #: APE20050002

Review Type: NSPS, SIP, Title V, Synthetic Minor

Source ID #: 21-037-00090

Regional Office: Florence

8020 Veterans Memorial Dr.

Suite 110

Florence, KY 41042

(859)525-4923

County: Campbell

Application

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John S. Lyons, Director Division for Air Quality

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Rev	Permit type	Log or	Complete	Issuance	Summary of
#		Activity#	Date	Date	Action
	Renewal	APE20040001	1/27/2004	1/27/2005	Title V permit V-04-042
1	Significant revision	APE20050002	11/2/2005	3/29/2006	Construction of emission units:
					EU52, EU53, EU54, EU55, EU56,
					EU57, EU58, EU59, EU60, EU61,
					EU62, EU63, EU64, EU65, EU66,
					EU67, EU68, EU69, EU71, EU72,
					EU73, EU74, EU75, and EU77.

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

EG01 – Material Storage and Handling (Exempt from NSPS Subpart OOO)

Emission Unit #	Description	Control Equipment	Installation Date
EU41	Outdoor Storage and Handling of Gypsum	Wet suppression system	2000
EU42	Outdoor Storage and Handling of Recycle Gypsum	Wet suppression system	2000
EU44	Barge Unloading Operations	None	2000
EU45	Transport and Handling of Material To/From/In Storage Area	None	2000
EU47	Primary Storage Building	None	2000
EU48	Secondary Storage Building	None	2004
EU51	Intermediate Gypsum Stockpile	Wet suppression system	2004

Emission Unit Description

EU41 Outdoor Storage and Handling of Gypsum

This activity encompasses all operations associated with the storage and handling of gypsum in the outdoor storage area.

EU42 Outdoor Storage and Handling of Recycle Gypsum

This activity encompasses all operations associated with the storage and handling of recycled gypsum materials in the outdoor storage area.

EU44 Barge Unloading Operations

This activity encompasses activities associated with the unloading and handling of gypsum material at the barge unloading station.

EU45 Transport and Handling of Material To/From/In Storage Area

This activity encompasses activities associated with the transport of reclaim wallboard and other materials to, from, and within the indoor and outdoor storage areas.

EU47 Primary Storage Building

This activity encompasses operations associated with the Primary Storage Building.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EU48 Secondary Storage Building

This activity encompasses operations associated with the Secondary Storage Building.

EU51 Intermediate Gypsum Stockpile

This activity encompasses operations associated with an intermediate gypsum stockpile under the drop chute on the main conveyor in the outdoor storage area.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive Emissions, applies to the particulate matter emissions generating activities, listed above.

1. Operating Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3 (1), the permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored, allow a building or its appurtenances to be constructed, altered, repaired, or demolished, or allow a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne.
- b. All outdoor gypsum storage piles shall be covered, at all times, by tarps, except that: The total uncovered base area of all gypsum piles shall total no more than 50,000 square feet.
- c. When visible dust is observed on or around a storage pile in the outdoor storage area, or when physical evaluations conducted in accordance with Condition 4b indicate the potential for visible dust from a storage pile in the outdoor storage area, the permittee shall apply water to the pile. Water will be applied to the subject storage pile using pressurized water spray equipment in a volume sufficient to wet the surface.
- d. The permittee shall maintain a wind screen barrier that extends from the gypsum storage pile to the mixer basin.

Compliance Demonstration Method:

- The permittee shall maintain and document compliance through completion of requirements listed in 4. Specific Monitoring Requirements and 5. Specific Recordkeeping Requirements.
- In case of failure of equipment used to apply water to storage piles, the permittee shall facilitate repairs or replacement of such equipment or alternately, contract for use of similar equipment from an outside supplier.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- The permittee shall record the base area of untarped portion and the height of the pile on a daily basis. The base area shall be calculated as described in 5.c. below. Upon determination that the square feet area of untarped portion of piles in the storage area exceeds a 50,000 ft² area, the permittee shall either reduce the size of the piles through transfer of material to the Primary or Secondary Storage Buildings, or initiate actions to tarp additional sections of existing storage piles.
 - A. Such tarp coverings shall be installed to cover the surface of the pile with no areas exposed.
 - B. Tarps shall be installed, maintained, and weighted down in accordance with vendor specifications.
- Upon determination that repairs are necessary to an installed tarp from the inspection conducted per 4.e. below, the permittee shall immediately facilitate repairs or replacements, or alternately, contact and authorize an outside vendor to accomplish necessary repairs or replacements.
- The permittee shall establish and follow procedures that define and enforce the use of loading practices for transfer of materials on-site that minimize the potential for fugitive dust.

2. <u>Emission Limitations</u>:

Pursuant to 401 KAR 63:010, Section 3 (2), the permittee shall not cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

Compliance Demonstration Method:

- See 1. Operating limitations above and its compliance demonstration method.
- See **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements** below.

3. Testing Requirements: None

4. **Specific Monitoring Requirements:**

a. Once per month, the permittee shall inspect the entire length of the wind screen barrier installed on the property fencing, checking the physical integrity and attachment of the screen material. Tears or detachments noted shall be addressed through repairs or replacements.

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- b. Twice daily, the permittee shall physically evaluate each gypsum storage pile in the outdoor storage area with respect to the likelihood of generating emissions. The physical evaluations shall be conducted as follows:
 - i. The physical evaluations shall be completed during daylight hours with the first evaluation occurring before noon. The second evaluation shall be conducted at least 4 hours after the first evaluation.
 - ii. For each untarped or partially tarped storage pile in the outdoor storage area, a person shall take a composite sample utilizing representative sampling techniques (i.e., approximately 9 samples from the top 1 inch of the pile for every 75 feet of exposed pile length in a grid like fashion). The composite sample shall be sealed properly and shall be delivered to a lab wherein the free moisture shall be determined using an appropriate method (such as, but not limited to, the O'haus, model MB200 test method).
 - iii. Potential for visible dust will be concluded when the free moisture of an exposed pile composite sample is less than 3%. If the free moisture content is tested to be less than 3% by weight, the permittee shall apply water to the untarped gypsum storage piles and retest until free moisture content greater than or equal to 3% is achieved.
- c. After application of water to a storage pile, the permittee shall physically evaluate the subject storage pile in accordance with Condition 4b.
- d. If at any time it is reported that gypsum was/is blowing from the pile, or if conditions exist which allow particulate matter to become airborne the pile shall be re-inspected, appropriate/necessary measures shall be implemented, and all relevant information shall be documented.
- e. Regardless of whether the 3% moisture content has been achieved, if dust is observed or the condition of the material appears conducive to dust, water shall be applied to the pile and physical evaluation of the subject storage pile shall be completed in accordance with Condition 4b. If conditions conducive to dust generation are observed even after 3% moisture content is reached, water shall be added to the exposed pile till the dust is suppressed and new percentage free moisture content shall be recorded. This new percent free moisture content shall be maintained for all the exposed piles until the conditions that led to it are ameliorated. The permittee can revert to 3% moisture content if the conditions that led to the use of higher moisture content are no longer prevalent.
- f. After removal or cut back of tarping on a storage pile in the outdoor storage area, the permittee shall physically evaluate the subject storage pile in accordance with Condition 4b.
- g. Tarps on each storage pile shall be inspected daily for the presence of tears or defects. Areas of a tarped pile that cannot be accessed safely should not be inspected. Records shall be kept of unsafe access determinations.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. **Specific Recordkeeping Requirements:**

- a. The permittee shall maintain a record of windscreen barrier inspections. This record shall include the date and time of inspections, identification of inspector, a summary of the physical conditions observed, and indication of any tears, detachments, or other conditions requiring maintenance.
- b. The permittee shall maintain a record of maintenance, repairs, and replacements to the wind screen barrier. This record shall include the date and time of maintenance and a summary of actions performed.
- c. The permittee shall maintain a log of daily work practices and monitoring completed as required by this permit. This log shall be maintained on-site in a form suitable for inspection. This log shall contain the following record elements:
 - Record of physical evaluations of each outdoor storage pile, including time of evaluation, identification of person performing evaluation, and results of evaluation.
 - ii. Indication pictorially of the portion of each storage pile that is covered by a tarp.
 - iii. The base area of untarped portions of each pile shall be calculated as follows:
 - Base area shall be calculated from drawing the base of pile on grid.
 - Base area of untarped portion of pile = L * W where L and W are the maximum length and width of the base of the untarped portions of each pile.
 - iv. For applications of water to a storage pile, the time of application, identification of operator, approximate volume of water applied and records of all incidents when free moisture content of exposed pile greater than 3% is required to suppress the dust.
 - v. Descriptions of situations or malfunctions preventing certain actions being taken in accordance with monitoring and recordkeeping requirements specified herein (e.g., breakdown of watering equipment).
 - vi. Results of all the inspections conducted per 4.g. above along with problems found with their dates shall be recorded. The corrective actions taken and the dates they were taken shall also be recorded.
- d. The permittee shall maintain documentation of correspondence and communication with outside vendors providing tarping services to the plant. This documentation shall include records of initial notifications to suppliers and records of when tarp installations or repairs by outside vendors are made.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG02 – Material Conveying and Processing (Subject to NSPS Subpart OOO)

Emission Unit #	Description	Control Equipment	Installation Date
EU25	Norba Feeder/Hammermill Recycle Grinder	Norba Baghouse	2000
EU36	Secondary Feeder System	None	2004
EU37	Recycle Material Processing Operation	None	2003
EU43	Gypsum Conveyor Systems	None	2000

Emission Unit Description

EU25 Norba Feeder/Hammermill Recycle Grinder

This emission unit encompasses all equipment and operations associated with the refeeding, grinding, and conveying of ground reclaim wallboard materials. This equipment is located inside the Primary Storage Building.

EU36 Secondary Feeder System

This emission unit encompasses all equipment and operations associated with a secondary feeder located in a shed adjacent to the Primary Storage Building and its associated conveyor system. Raw gypsum and recycle material is received at a hopper, screw-fed to a conveyor, and conveyed to a transfer point on the main conveyor leading to the Mill Building.

EU37 Recycle Material Processing Operation

This emission unit encompasses all equipment and operations associated with the screening of gypsum material in the outdoor storage area.

EU43 Gypsum Conveyor Systems

This emission unit encompasses all conveyor systems and associated equipment up to the Gypsum Surge Bins in the Mill Building that are affected sources under NSPS Subpart OOO.

APPLICABLE REGULATIONS:

401 KAR 60:670 <u>Standards of Performance for Nonmetallic Mineral Processing Plants</u> commenced on or after August 31, 1983 applies to the particulate matter (PM) and visible emissions from listed emission units.

1. Operating Limitations:

To preclude applicability of 401 KAR 51:052, *Review of New Sources In or Impacting upon Nonattainment Areas*, the permittee has accepted the following:

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Hours of operation for the combustion engine associated with the Recycle Material Processing Operation (EU37) shall not exceed 2,920 hours during any consecutive 12 months.

Compliance Demonstration Method:

• See **5. Specific Recordkeeping Requirements** below.

2. <u>Emission Limitations</u>:

- a. Mass Emission Limit. Pursuant to 401 KAR 60:670, emissions of particulate matter (PM) from the Norba Feeder/Hammermill Recycle Grinder shall not exceed 0.05 g/dscm (0.02 grains/dscf) averaged over a three hour period.
- b. Opacity Limit. Pursuant to 401 KAR 60:670, Opacities of visible emissions from the Secondary Feeder System, Recycle Material Processing Operation, Norba Feeder/Hammermill Recycle Grinder, and Gypsum Conveyor Systems shall not exceed 10% on a one hour average basis.

Compliance Demonstration Method:

- For compliance with the mass emission limit for the Norba Feeder/Hammermill Recycle Grinder, during periods of normal operation of the Norba Baghouse, refer to item b. under **3.Testing Requirements**.
- If the Norba Feeder/Hammermill Recycle Grinder is in operation during any period of malfunction of the Norba Baghouse, the permittee shall determine compliance through maintenance of the records required by item b. under **5. Specific Recordkeeping Requirements** below.
- Activities associated with the Recycle Material Processing Operation shall be
 performed in a manner that minimizes the potential for fugitive dust. The permittee
 shall demonstrate compliance with applicable standards through completion of visual
 monitoring specified in Condition 4b. Piles of recycle materials shall be maintained in
 accordance with work practices specified for emission point EU42 in this permit for
 outdoor gypsum storage piles.

3. Testing Requirements:

a. Pursuant to 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the permittee shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity during the initial demonstration of compliance and annually thereafter for the Recycle Material Processing Operation and Gypsum Conveyor Systems. Pursuant to 401 KAR 60:670 Section 3(2)(b), EPA Reference Method 9 shall be used outside the building enclosing Norba Feeder/ Hammer Recycle grinder and Secondary Feeder to determine opacity during the initial demonstration of compliance and annually thereafter. The Division reserves the right to require additional testing.

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- b. Pursuant to 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the permittee shall use EPA Reference Method 5 and the procedures described in 40 CFR 60.675 to determine particulate matter concentration, during the initial demonstration of compliance, for the Norba Feeder/Hammermill Recycle Grinder. The Division reserves the right to require additional testing.
- c. EPA Reference Method 7 or equivalent shall be used during the initial demonstration of compliance and annually thereafter to determine NO_X emissions from the Recycle Material Processing Operation.
- d. EPA Reference Method 10 or equivalent shall be used during the initial demonstration of compliance and annually thereafter to determine CO emissions from the Recycle Material Processing Operation.

4. **Specific Monitoring Requirements:**

- a. The permittee shall monitor and record the pressure drop across the Norba Baghouse on the Norba Feeder/Hammermill Recycle Grinder on a weekly basis.
- b. The permittee shall conduct visual observations of the Secondary Feeder System and Recycle Material Processing Operation on a weekly basis and keep records in accordance with Condition 5d below.

5. **Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information:

- a. Weekly log of the pressure drop across the Norba Baghouse on the Norba Feeder/Hammermill Recycle Grinder as required under Condition 4a.
- b. If a malfunction of any fabric filter system is identified, the permittee shall perform a visual observation and maintain a record of whether any visible emissions were observed. If the permittee continues to operate the emissions unit following an identification of the malfunction, the permittee shall perform an EPA Reference Method 9 test to read the opacity on a daily basis and keep records of test performed. For fabric filter systems that vent to the interior of plant buildings, the visual observation and Method 9 test should be conducted on the building vent nearest to the equipment.
- c. Maintenance activities performed on Norba Baghouse on the Norba Feeder/Hammermill Recycle Grinder and maintenance activities performed on the Recycle Material Processing Operation equipment.
- d. A weekly (calendar week) log of the following information shall be kept for the Recycle Material Processing Operation and Secondary Feeder System as required under Condition 4b:

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Whether any air emissions were visible. If visible emissions are observed, the permittee shall record the following information:

- A. Whether the visible emissions were normal for the process.
- B. The color of the emissions and whether the emissions were light or heavy.
- C. The cause of the abnormal visible emissions.
- D. Any corrective actions taken.
- e. Daily records of the hours of operation and rolling total of the yearly hours of operation shall be kept for the Recycle Material Processing Operation.
- f. Monthly fuel consumption in the Recycle Material Processing Operation.
- g. Rolling totals of the yearly (previous 12 months) NO_X and CO emissions from the Recycle Material Processing Operation. Emissions shall be calculated using the monthly fuel consumption multiplied by the current emission factor in the KYEIS or from the most recent performance test.
- h. Maintenance performed on the combustion engine associated with the Recycle Material Processing Operation.
- **6. Specific Reporting Requirements:** None
- 7. Specific Control Equipment Operating Conditions: None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG03 – Gypsum Feed Bins and Silos

Emission Unit #	Description	Control Equipment	Installation Date
EU01	Synthetic Gypsum Surge Bin #1	Surge Bin Filter System	2000
EU03	Imp Mill #1 Feed Silo	Bin Vent Filter	2000
EU04	Imp Mill #2 Feed Silo	Bin Vent Filter	2000
EU29	Synthetic Gypsum Surge Bin #2	Surge Bin Filter System (same unit as for EU01)	2004
EU31	Imp Mill #3 Feed Silo	Bin Vent Filter	2004
EU52	Synthetic Gypsum Surge Bin #3	Surge Bin #3 Filter System	Proposed
EU53	Synthetic Gypsum Surge Bin #3	Surge Bin #3 Filter System (same unit as for EU52)	Proposed
EU56	Imp Mill #4 Feed Silo	Bin Vent Filter	Proposed
EU57	Imp Mill #5 Feed Silo	Bin Vent Filter	Proposed
EU58	Imp Mill #6 Feed Silo	Bin Vent Filter	Proposed

APPLICABLE REGULATIONS:

401 KAR 60:670 <u>Standards of Performance for Nonmetallic Mineral Processing Plants</u> commenced on or after August 31, 1983 applies to the particulate matter (PM) and visible emissions from listed emission units.

1. **Operating Limitations:** None

2. <u>Emission Limitations</u>:

- a. Mass Emission Limit. Pursuant to 401 KAR 60:670, emissions of particulate matter (PM) listed emission units shall not exceed 0.05 g/dscm (0.02 grains/dscf) averaged over a three hour period.
- b. Opacity Limit. Pursuant to 401 KAR 60:670, opacities of visible emissions from listed emission units shall not exceed 7% on a one hour average basis.

Compliance Demonstration Method:

• During periods of normal operation of the Bin Vent Filters, refer to item b. under **3.Testing Requirements**.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

• If any of the emission units listed are in operation during any period of malfunction of the Bin Vent Filters, the permittee shall determine compliance through maintenance of the records required by Item a. under **5. Specific Recordkeeping Requirements** below.

3. <u>Testing Requirements</u>:

- a. Pursuant to 401 KAR 60:670 Section 3(2)(b), EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used outside the building enclosing each listed emission unit to determine opacity during the initial demonstration of compliance and annually thereafter for each listed emission unit.
- b. EPA Reference Method 5 or Method 17 shall be performed as required by the Division to determine particulate matter concentration from the listed emission units.
- 4. Specific Monitoring Requirements: See 5. Specific Recordkeeping Requirements.
- 5. **Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information:

- a. If a malfunction of any fabric filter system is identified, the permittee shall perform a visual observation and maintain a record of whether any visible emissions were observed. If the permittee continues to operate the emissions unit following an identification of the malfunction, the permittee shall perform an EPA Reference Method 9 test to read the opacity on a daily basis and keep records of test performed. For fabric filter systems that vent to the interior of plant buildings, the visual observation and Method 9 test should be conducted on the building vent nearest to the equipment.
- b. Maintenance activities performed on the Bin Vent Filters.
- **6. Specific Reporting Requirements:** None
- 7. Specific Control Equipment Operating Conditions: None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG04 - Stucco Handling

Emission Unit #	Description	Control Equipment	Installation Date
EU09	Air Cooling and Baghouse System #1	None	2000
EU10	Air Cooling and Baghouse System #2	None	2000
EU12	Stucco Bin #1	Stucco Bin #1 Filter	2000
EU13	Stucco Bin #2	Stucco Bin #2 Filter	2000
EU33	Air Cooling and Baghouse System #3	None	2005
EU34	Stucco Bin #3	Stucco Bin #3 Filter	2005
EU38	Stucco Grinding System #1	(vents to EP09)	2004
EU39	Stucco Grinding System #2	(vents to EP10)	2004
EU40	Stucco Grinding System #3	(vents to EP33)	2004
EU62	Air Cooling and Baghouse System #4 (and associated Stucco Grinding System)	None	Proposed
EU63	Air Cooling and Baghouse System #5 (and associated Stucco Grinding System)	None	Proposed
EU64	Air Cooling and Baghouse System #6	None	Proposed
EU65	Stucco Bin #4	Stucco Bin #4 Filter	Proposed
EU66	Stucco Bin #5	Stucco Bin #5 Filter	Proposed
EU67	Stucco Bin #6	Stucco Bin #6 Filter	Proposed

APPLICABLE REGULATIONS:

 $\overline{401 \text{ KAR } 59:010 \text{ New Process Operations}}$ commenced on or after July 2, 1975 applies to particulate matter (PM/PM₁₀) emissions and visible emissions from listed emission units.

1. **Operating Limitations:** None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

- a. Mass Emission Limit pursuant to 401 KAR 59:010 Section 3(2): Particulate matter emissions shall not exceed: $3.59 \times (Tons \, Processed)^{0.62} \, lbs/hr$ for (Tons Processed) less than 30 tons per hour, otherwise: $17.31 \times (Tons \, Processed)^{0.16} \, lbs/hr$, averaged over a three hour period.
- b. Opacity Limit pursuant to 401 KAR 59:010, Section 3(1)(a): Visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis.

Compliance Demonstration Method:

- During periods of normal operation of the Bin Vent Filters and Baghouses on the Air Cooling Systems, refer to 3.Testing Requirements, 4. Specific Monitoring Requirements, and 5. Specific Recordkeeping Requirements.

 If any of the emission units are in operation during any period of malfunction of the Bin Vent Filters or Baghouses on the Air Cooling Systems, the permittee shall determine compliance through maintenance of the records required by item b. under 5. Specific Recordkeeping Requirements below.
- For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

3. Testing Requirements:

- a. Pursuant to 401 KAR 59:010, EPA Reference Method 5 shall be used during the initial demonstration of compliance to determine particulate matter concentration from the Air Cooling Baghouse Systems.
- b. Pursuant to 401 KAR 50:010, the permittee shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, during the initial demonstration of compliance and annually thereafter for the Air Cooling Baghouse Systems.

4. **Specific Monitoring Requirements:**

- a. The permittee shall monitor and record the pressure drop across the Air Cooling System Baghouses on a daily basis.
- b. The permittee shall conduct visual observations of the Air Cooling System Baghouses on a daily basis and keep records in accordance with Condition 5d below.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. Daily log of the pressure drop across the Air Cooling System Baghouses as required under Condition 4a.

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- b. If a malfunction of any fabric filter system is identified, the permittee shall perform a visual observation and maintain a record of whether any visible emissions were observed. If the permittee continues to operate the emissions unit following an identification of the malfunction, the permittee shall perform an EPA Reference Method 9 test to read the opacity on a daily basis and keep records of test performed. For fabric filter systems that vent to the interior of plant buildings, the visual observation and Method 9 test should be conducted on the building vent nearest to the equipment.
- c. Maintenance activities performed on all Baghouses or bin vent filter systems.
- d. A daily (calendar day) log of the following information shall be kept for the Air Cooling and Baghouse Systems:

Whether any air emissions were visible. Whether any air emissions were visible. If visible emissions are observed, the permittee shall record the following information:

- A. Whether the visible emissions were normal for the process.
- B. The color of the emissions and whether the emissions were light or heavy.
- C. The cause of the abnormal visible emissions.
- D. Any corrective actions taken.
- **6. Specific Reporting Requirements:** None
- 7. **Specific Control Equipment Operating Conditions:** None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG05 - Wallboard Manufacturing

Emission Unit #	Description	Control Equipment	Installation Date
EU15	Starch Silo	Starch Silo Vent Filter	2000
EU17	Pin Mixer and Additives System	Nuisance Baghouse	2000
EU18	Gypsum Board Dryer (Wet End and Dry End)	None	2000
EU20	Sawing and Trimming Systems	End-Trim Baghouse	2000
EU28	Vermiculite Bin	Bin Vent Filter	2000
EU50	Dunnage Machine	End-Trim Baghouse	2000
EU68	Pin Mixer and Additives System #2	Nuisance Baghouse #2	Proposed
EU69	Gypsum Board Dryer #2 (Wet End and Dry End)	None	Proposed
EU71	Sawing and Trimming Systems #2	End-Trim Baghouse #2	Proposed
EU72	Dunnage Machine #2	End-Trim Baghouse #2	Proposed
EU77	Starch Silo #2	Starch Silo #2 Vent Filter	Proposed

Emission Unit Description

EU15 Starch Silo

This emission unit encompasses all equipment and operations associated with receiving and feeding starch as an additive for the wallboard manufacturing operations. The Silo is located outside the production building and exhausts to the atmosphere.

EU17 Pin Mixer and Additives System

This emission unit encompasses all equipment and operations associated with conveying and feeding additives to the Pin Mixer equipment. It also encompasses the Pin Mixer system itself. Emissions are captured at pick-up points around additive bins in the Pin Mixer area and from the Pin Mixer and are sent to the Nuisance Baghouse.

EU18 Gypsum Board Dryer (Wet End and Dry End)

The Board Dryer is equipped with several natural-gas fired burners that dry the formed wallboard to the appropriate moisture content. A stack on the wet end of the Board Dryer (near inlet) serves for control of humidity. Emissions from combustion and drying exhaust out of a stack on the dry end of the Board Dryer

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EU20 Sawing and Trimming System

This emission unit encompasses all equipment and operations associated with sizing dried wallboard following its exit from the Board Dryer. Emissions are captured at pick-up points around sawing and trimming stations and are sent to the End-Trim Baghouse located inside the Primary Storage Building. Emissions from the Dunnage Machine (EU50) are also ducted to the End-Trim Baghouse.

EU28 Vermiculite Bin

This emission unit encompasses all equipment and operations associated with receiving and feeding vermiculite as an additive for the wallboard manufacturing operations. The Vermiculite Bin exhausts through a Bin Vent Filter to the interior of the production building.

EU50 Dunnage Machine

This emission unit encompasses all equipment and operations associated with the production of risers, also called dunnage pieces, which are used when stacking finished wallboard for storage or load-out on trucks. Emissions are captured at pick-up points around the dunnage machine stations and are sent to the End-Trim Baghouse located inside the Primary Storage Building. Emissions from the Sawing and Trimming Systems (EU20) are also ducted to the End-Trim Baghouse.

EU68 Pin Mixer and Additives System #2

This emission unit encompasses all equipment and operations associated with conveying and feeding additives to Pin Mixer #2 equipment. It also encompasses the Pin Mixer #2 system itself. Emissions are captured at pick-up points around additive bins in the Pin Mixer #2 area and from the Pin Mixer #2 and are sent to the Nuisance Baghouse #2.

EU69 Gypsum Board Dryer #2 (Wet End and Dry End)

Board Dryer #2 is equipped with several natural-gas fired burners that dry the formed wallboard to the appropriate moisture content. Emissions exhaust out of a single stack on the dry end of Board Dryer #2.

EU71 Sawing and Trimming System #2

This emission unit encompasses all equipment and operations associated with sizing dried wallboard following its exit from Board Dryer #2. Emissions are captured at pick-up points around sawing and trimming stations and are sent to the End-Trim Baghouse #2 located inside the Primary Storage Building. Emissions from the Dunnage Machine (EU72) are also ducted to End-Trim Baghouse #2.

EU72 Dunnage Machine #2

This emission unit encompasses all equipment and operations associated with the production of risers, also called dunnage pieces, which are used when stacking finished wallboard from the second production line for storage or load-out on trucks. Emissions are captured at pick-up points around the dunnage machine stations and are sent to End-Trim Baghouse #2 located inside the Primary Storage Building. Emissions from Sawing and Trimming Systems #2 (EU71) are also ducted to End-Trim Baghouse #2.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EU77 Starch Silo #2

This emission unit encompasses all equipment and operations associated with receiving and feeding starch as an additive for the wallboard manufacturing operations. Starch Silo #2 is located outside the production building and exhausts to the atmosphere.

APPLICABLE REGULATIONS:

401 KAR 59:010 New Process Operations commenced on or after July 2, 1975 applies to particulate matter (PM/PM₁₀) emissions and visible emissions.

1. **Operating Limitations:** None

2. <u>Emission Limitations</u>:

- a. Mass Emission Limit pursuant to 401 KAR 59:010 Section 3(2): Particulate matter emissions shall not exceed: $3.59 \times (Tons Processed)^{0.62} lbs/hr$ for (Tons Processed) less than 30 tons per hour, otherwise: $17.31 \times (Tons Processed)^{0.16} lbs/hr$, averaged over a three hour period.
- b. Opacity Limit pursuant to 401 KAR 59:010, Section 3(1)(a): Visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis.

Compliance Demonstration Method:

- For emission units with fabric filter systems, during periods of normal operation of the filters, refer to item a. under **3.Testing Requirements**.

 If emission units with fabric filter systems are in operation during any period of malfunction of the filters, the permittee shall determine compliance through maintenance of the records required by Item c. under **5. Specific Recordkeeping Requirements** below.
- For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

3. <u>Testing Requirements:</u>

- a. Pursuant to 401 KAR 59:010, EPA Reference Method 5 or equivalent shall be used during the initial demonstration of compliance to determine particulate matter concentration for the Pin Mixer and Additives System, Gypsum Board Dryer, End-Trim Baghouse, Pin Mixer and Additives System #2, Gypsum Board Dryer #2, and End-Trim Baghouse #2.
- b. Pursuant to 401 KAR 59:010, the permittee shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, during initial demonstration of compliance for the Pin Mixer and Additives System, Gypsum Board Dryer, End-Trim Baghouse, Pin Mixer and Additives System #2, Gypsum Board Dryer #2, and End-Trim Baghouse #2.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. EPA Reference Method 7 or equivalent shall be used during the initial demonstration of compliance and annually thereafter to determine NO_X emissions from the Board Dryer and Board Dryer #2.

d. EPA Reference Method 10 or equivalent shall be used during the initial demonstration of compliance and annually thereafter to determine CO emissions from the Board Dryer and Board Dryer #2.

4. **Specific Monitoring Requirements:**

- a. The permittee shall monitor and record the pressure drop across the Nuisance Baghouse on the Pin Mixer and Additives System, Nuisance Baghouse #2 on the Pin Mixer and Additives System #2, End-Trim Baghouse, and End-Trim Baghouse #2 on a weekly basis.
- b. The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a monthly basis and maintain a log of the observation. If visible emissions from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

- a. Monthly fuel consumption in the Gypsum Board Dryer and Gypsum Board Dryer #2.
- b. Rolling totals of the yearly (previous 12 months) NO_X and CO emissions from the Gypsum Board Dryer and Gypsum Board Dryer #2. Emissions shall be calculated using the monthly fuel consumption multiplied by the current emission factor in the KYEIS or from the most recent performance test.
- c. If a malfunction of any fabric filter system is identified, the permittee shall perform a visual observation and maintain a record of whether any visible emissions were observed. If the permittee continues to operate the emissions unit following an identification of the malfunction, the permittee shall perform an EPA Reference Method 9 test to read the opacity on a daily basis and keep records of test performed. For fabric filter systems that vent to the interior of plant buildings, the visual observation and Method 9 test should be conducted on the building vent nearest to the equipment.
- d. Maintenance performed on the burners of the Gypsum Board Dryer and Gypsum Board Dryer #2. Maintenance and calibration of burners, thermocouples and air-to-fuel ratios shall be done in accordance with manufacturers' specifications.
- e. Maintenance activities performed on the Nuisance Baghouse, Nuisance Baghouse #2, End-Trim Baghouse, and End-Trim Baghouse #2.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- f. Weekly log of the pressure drop across the Nuisance Baghouse, Nuisance Baghouse #2, End-Trim Baghouse, and End-Trim Baghouse #2 as required under Condition 4a.
- g. Monthly log of qualitative visible observation of opacity of emissions and the opacity determined by EPA Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard.
- **6. Specific Reporting Requirements:** None
- 7. **Specific Control Equipment Operating Conditions:** None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG06 - Landplaster Processing

Emission Unit #	Description	Control Equipment	Installation Date
EU16	Ball Mill System and BMA Receiver Baghouse	None	2000
EU49	Landplaster Bins (#1 and #2)	(vents to Cage Mill #1 and #2)	2000
EU73	Landplaster Bin #3	(vents to Cage Mill #3)	Proposed
EU74	Landplaster Bin #4	(vents to Cage Mill #4)	Proposed
EU75	Ball Mill System and BMA Receiver Baghouse #2	None	Proposed

APPLICABLE REGULATIONS:

401 KAR 60:670 <u>Standards of Performance for Nonmetallic Mineral Processing Plants</u> commenced on or after August 31, 1983 applies to the particulate matter (PM) and visible emissions from listed emission units.

1. **Operating Limitations:** None

2. <u>Emission Limitations</u>:

- a. Mass Emission Limit. Pursuant to 401 KAR 60:670, emissions of particulate matter (PM) from the listed emission units shall not exceed 0.05 g/dscm (0.02 grains/dscf) averaged over a three-hour period.
- b. Opacity Limit. Pursuant to 401 KAR 60:670, opacities of visible emissions from the listed emission units shall not exceed 7% on a one-hour average basis.

Compliance Demonstration Method:

- During periods of normal operation of the fabric filter systems, refer to item b under **3. Testing Requirements**.
 - If a listed emission unit is in operation during any period of malfunction of its fabric filter system, the permittee shall determine compliance through maintenance of the records required by Item a. under **5. Specific Recordkeeping Requirements** below.
- For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

- a. Pursuant to 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the Permittee shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity upon the initial demonstration of compliance for the proposed Ball Mill System (EU 75).
- b. Pursuant to 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the permittee shall use EPA Reference Method 5 and the procedures described in 40 CFR 60.675 to determine to determine particulate matter concentration, during the initial demonstration of compliance, the proposed Ball Mill System (EU 75).

4. **Specific Monitoring Requirements:**

The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a monthly basis and maintain a log of the observation. If visible emissions from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

- a. If a malfunction of any fabric filter system is identified, the permittee shall perform a visual observation and maintain a record of whether any visible emissions were observed. If the permittee continues to operate the emissions unit following an identification of the malfunction, the permittee shall perform an EPA Reference Method 9 test to read the opacity on a daily basis and keep records of test performed. For fabric filter systems that vent to the interior of plant buildings, the visual observation and Method 9 test should be conducted on the building vent nearest to the equipment.
- b. Maintenance activities performed on fabric filter systems.
- c. Monthly log of qualitative visible observation of opacity of emissions and the opacity determined by EPA Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG07 – Dryers and Calciners

Emission Unit #	Description	Control Equipment	Installation Date
EU02	Cage Mill Flash Dryer and Baghouse System #1	None	2000
EU06	Imp Mill Calciner and Baghouse System #1	None	2000
EU07	Imp Mill Calciner and Baghouse System #2	None	2000
EU30	Cage Mill Flash Dryer and Baghouse System #2	None	2004
EU32	Imp Mill Calciner and Baghouse System #3	None	2005
EU54	Cage Mill Flash Dryer and Baghouse System #3	None	Proposed
EU55	Cage Mill Flash Dryer and Baghouse System #4	None	Proposed
EU59	Imp Mill Calciner and Baghouse System #4	None	Proposed
EU60	Imp Mill Calciner and Baghouse System #5	None	Proposed
EU61	Imp Mill Calciner and Baghouse System #6	None	Proposed

APPLICABLE REGULATIONS:

401 KAR 60:670: <u>Standards of Performance for Nonmetallic Mineral Processing Plants</u> commenced on or after August 31, 1983 applies to the particulate matter (PM) emissions and visible emissions from Cage Mill Flash Dryer and Baghouse System #1, #2, #3, and #4.

401 KAR 60:005 (40 CFR 60 Subpart UUU): <u>Standards of Performance for Calciners and Dryers in Mineral Industries</u> commenced on or after July 2, 1975 applies to the particulate matter (PM) emissions and visible emissions from Imp Mill Calciner and Baghouse System #1, #2, #3, #4, #5, and #6.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. **Operating Limitations:** None

2. <u>Emission Limitations</u>:

- a. Mass Emission Limit pursuant to 401 KAR 60:670: Emissions of particulate matter (PM) from Cage Mill Flash Dryer and Baghouse System #1, #2, #3, and #4 shall not exceed 0.05 g/dscm (0.02 grains/dscf) averaged over a three hour period.
- b. Mass Emission Limit pursuant to 401 KAR 60:005 (40 CFR 60 Subpart UUU): Emissions of particulate matter (PM) from Imp Mill Calciner and Baghouse System #1, #2, #3, #4, #5, and #6 shall not exceed 0.092 g/dscm (0.040 grains/dscf) averaged over a three hour period.
- c. Opacity Limit pursuant to 401 KAR 60:670: Opacities of visible emissions from the Cage Mill Flash Dryer and Baghouse System #1, #2, #3, and #4 shall not exceed 7% on a six minute average basis.
- d. Opacity Limit pursuant to 401 KAR 60:005 (40 CFR 60 Subpart UUU): Opacities of visible emissions from Imp Mill Calciner and Baghouse System #1, #2, #3, #4, #5, and #6 shall not exceed 10% on a 6-minute average basis.

Compliance Demonstration Method:

- For compliance demonstration with the mass emission limits, during periods of normal operation of the fabric filter systems, refer to **3. Testing Requirements**. If any of the emission units are in operation during any period of the malfunction of its fabric filter system, the permittee shall determine compliance through maintenance of the records required by Item d. under **5. Specific Recordkeeping Requirements** below.
- For compliance with the opacity limit, refer to **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

3. Testing Requirements:

- a. Pursuant to 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the permittee shall use EPA Reference Method 5 and the procedures described in 40 CFR 60.675 to determine to determine particulate matter concentration, during the initial demonstration of compliance for Cage Mill Flash Dryer and Baghouse System #1, #2, #3, and #4.
- b. Pursuant to 401 KAR 60:005 (40 CFR 60 Subpart UUU), specifically 40 CFR 60.736(b), the permittee shall use EPA Reference Method 5 and the procedures described in 40 CFR 60.736 to determine particulate matter concentration, upon the initial demonstration of compliance for Imp Mill Calciner and Baghouse System #1, #2, #3, #4, #5, and #6.

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- c. Pursuant to 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the permittee shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, during the initial demonstration of compliance and annually thereafter for Cage Mill Flash Dryer and Baghouse System #1, #2, #3, and #4.
- d. Pursuant to 401 KAR 60:005 (40 CFR 60 Subpart UUU), specifically 40 CFR 60.736 and 40 CFR 60.12(e)(4), the permittee shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, during the initial demonstration of compliance and annually thereafter for Imp Mill Calciner and Baghouse System #1, #2, #3, #4, #5, and #6.
- e. EPA Reference Method 7 or equivalent shall be used during the initial demonstration of compliance and annually thereafter to determine NO_X emissions from the listed emission units.
- f. EPA Reference Method 10 or equivalent shall be used during the initial demonstration of compliance and annually thereafter to determine CO emissions from the listed emission units.

4. **Specific Monitoring Requirements:**

- a. The permittee shall monitor and record the pressure drop across each fabric filter system on a daily basis.
- b. The permittee shall conduct visual observations of the fabric filter systems on a daily basis and keep records in accordance with Condition 5.g. below.

5. **Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information:

- a. Monthly fuel consumption at each affected facility.
- b. Rolling totals of the yearly (previous 12 months) NO_X and CO emissions. Emissions shall be calculated using the monthly fuel consumption multiplied by the current emission factor in the KYEIS or from the most recent performance test.
- c. Daily log of the pressure drop across the fabric filter systems as required under Condition 4a above.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. If a malfunction of any fabric filter system is identified, the permittee shall perform a visual observation and maintain a record of whether any visible emissions were observed. If the permittee continues to operate the emissions unit following an identification of the malfunction, the permittee shall perform an EPA Reference Method 9 tests to read the opacity on a daily basis and keep records of test performed. For fabric filter systems that vent to the interior of plant buildings, the visual observation and Method 9 tests should be conducted on the building vent nearest to the equipment.
- e. Maintenance activities performed on fabric filter systems of the listed emission units.
- f. Maintenance performed on the burners in the listed emission units. Maintenance and calibration of burners, thermocouples and air-to-fuel ratios shall be done in accordance with manufacturers' specifications.
- g. A daily (calendar daily) log of the following information shall be kept for each listed emission unit as required under Condition 4b:
 - i. Whether any air emissions were visible. If visible emissions are observed, the permittee shall record the following information:
 - A. Whether the visible emissions were normal for the process.
 - B. The color of the emissions and whether the emissions were light or heavy.
 - C. The cause of the abnormal visible emissions.
 - D. Any corrective actions taken.
- **6. Specific Reporting Requirements:** None
- 7. Specific Control Equipment Operating Conditions: None

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EG08 – Mobile Source Emissions

Emission Unit #	Description	Control Equipment	Installation Date
EU46	Vehicle Movement on Roads and Surfaces	Water truck, wet sweeper	2000

Emission Unit Description

EU46 Vehicle Movement on Roads and Surfaces

This activity encompasses vehicle movements, primarily trucks, associated with hauling materials on paved plant roads and surfaces.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive Emissions, applies to the particulate matter emissions generating activities, as outlined in this section.

1. **Operating Limitations:**

- a. Pursuant to 401 KAR 63:010, Section 3 (1), the permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored, allow a building or its appurtenances to be constructed, altered, repaired, or demolished, or allow a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions to prevent particulate matter from becoming airborne shall include, when applicable, but not be limited to the following:
 - i. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - v. The maintenance of paved roadways in a clean condition;
 - vi. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water.
- b. The permittee shall apply water to plant roads as soon as gypsum material is found on the roads which can cause particulates to be airborne based on visual observations performed according to 4.a. below.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. The permittee shall ensure gypsum material and debris noted during plant road inspections are removed.
- d. The permittee shall establish and follow procedures that require heavy equipment leaving the outdoor storage area to use a wheel wash system under appropriate conditions prior to traveling onto plant roads.
- e. The permittee shall establish policies and maintain signs to enforce a 15 mph speed limit for truck traffic on plant haul roads. Such policies shall also require lower speeds in the event that visible dusting is observed from plant roads.
- f. The permittee shall establish and follow procedures that, where feasible, routes the majority of vehicle traffic to the haul roads at the rear of the plant.

Compliance Demonstration Method:

- The permittee shall maintain and document compliance through completion of monitoring and recordkeeping requirements outlined in this section.
- In case of failure of equipment used to apply water to storage piles or road surfaces, the permittee shall facilitate repairs or replacement of such equipment or alternately, contract for use of similar equipment from an outside supplier/vendor.

2. Emission Limitations:

Pursuant to 401 KAR 63:010, Section 3 (2), the permittee shall not cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

Compliance Demonstration Method:

See the Compliance Demonstration Method for the operating limitations above.

3. Testing Requirements: None

4. Specific Monitoring Requirements:

a. On a daily basis, the permittee shall inspect the plant roads for presence of gypsum material debris.

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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. **Specific Recordkeeping Requirements:**

- a. The permittee shall maintain a log of daily work practices and monitoring completed as required by this permit. This log shall be maintained on-site in a form suitable for inspection. This log shall contain the following record elements:
 - i. All controls (water and non-water application which includes but not limited to sweeping and debris collection etc.) applied to the haul roads. It shall also include the identification of the control and the operator, the amount of water or other substances or materials that were applied.
 - ii. Descriptions of situations or malfunctions preventing certain actions being taken in accordance with monitoring and recordkeeping requirements specified herein (e.g., breakdown of watering equipment).
 - iii. Record of plant road inspections, including the time of inspection, identification of person performing inspection, results of inspection, and record of actions taken, if necessary, to remove gypsum material or debris.
- b. The permittee shall maintain a log of maintenance, repair, and replacement activities conducted on the Wheel Wash system in the outdoor storage area.
- **6. Specific Reporting Requirements:** None
- 7. **Specific Control Equipment Operating Conditions:** None

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SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Surfactant Tank	None
2.	Dispersant Tank	None
3.	Retarder Tank	None
4.	Glue Tank	None
5.	Wax Tank	None
6.	Propane Storage Tank	None
7.	Inkjet Printing System	None
8.	Personal Area Heaters	None
9.	Portable High Vacuum Cleaning System	401 KAR 63:010
10.	Six Paper Heater Burners	None
11.	Fiberglass Bin	None
12.	Sugar Bin	None
13.	Potash Bin	None
14.	Two Diesel Emergency Generators	None
15.	Two Fire Pumps	None
16.	Wastewater Treatment Tank	None
17.	Boric Acid Bin	None
18.	Six Paper Heater Burners (Board Line #2)	None
19.	Six Outdoor Space Heaters	401 KAR 59:010 and 63:010

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SECTION D - SOURCE EMISSION LIMITATIONS, OPERATING LIMITATIONS, AND TESTING REQUIREMENTS

- 1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
- 2. Opacity, NO_X, CO, and PM emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.

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SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit:
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. All deviations from permit requirements shall be clearly identified in the reports.

- 7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 15 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6 [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

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SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality Florence Regional Office 8020 Veterans Memorial Drive, Suite 110 Florence, KY 41042 U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. Atlanta, GA 30303-8960

Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

- 10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
- 11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

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SECTION G - GENERAL PROVISIONS

(a) <u>General Compliance Requirements</u>

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

- 2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- 4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

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SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

- 7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
- 11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
- 13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
- 14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
- 15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:

- a. Applicable requirements that are included and specifically identified in the permit and
- b. Non-applicable requirements expressly identified in this permit.
- 17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

- 1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- 2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

(c) Permit Revisions

- 1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- 2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) <u>Construction, Start-Up, and Initial Compliance Demonstration Requirements</u>

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points EU52, EU53, EU54, EU55, EU56, EU57, EU58, EU59, EU60, EU61, EU62, EU63, EU64, EU65, EU66, EU67, EU68, EU69, EU71, EU72, EU73, EU74, EU75, and EU77 in accordance with the terms and conditions of this permit.

- 1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- 2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
- 3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- 4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- 5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration/test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test

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SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

7. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirement on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

(e) <u>Acid Rain Program Requirements</u>

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

- 1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - During an emergency, the permittee took all reasonable steps to minimize levels of
 emissions that exceeded the emissions standards or other requirements in the permit;
 and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
- 2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

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SECTION G - GENERAL PROVISIONS (CONTINUED)

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

- 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

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SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I – COMPLIANCE SCHEDULE

None